



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

OLIVER, C. A.—A Short note upon so-called "Hereditary Optic Nerve Atrophy" as a Contribution to the Question of Transmission of Structural Peculiarity. Extr. Proceeds. Amer. Philos. Soc., Vol. XXXII.

SCOTT, W. B.—*Protoptychus hatcherii*, a new Rodent from the Uinta Eocene. Extr. Proceeds. Phila. Acad. Nat. Sci., 1895. From the author.

SHIPLEY, S. R.—Gold, Silver and Money. Extr. Amer. Friend, 1895. From the author.

STILES, C. W.—Notes on Parasites 32, 33, 34, 38 and 39. Extr. Veterinary Mag., 1895.—The Anatomy of the large American Fluke, *Fasciola magna* and a comparison with other species of the genus *Fasciola*, S. St. with a list of the chief Epizootics of Fascioliasis, and a Bibliography of *Fasciola hepatica* by Albert Hassall. Extr. Journ. Comp. Med. & Veterinary Arch., 1894-1895. From the author.

WHITE, C. A.—The Bear River Fauna and its Characteristic Fauna. Bull. U. S. Geol. Surv., No. 128. Washington, 1895. From the author.

WILSON, E. B.—An Atlas of the Fertilization and Karyokinesis of the Ovum. New York and London, 1895, Macmillan & Co. From the author.

General Notes.

PETROGRAPHY.¹

The Eruptives and Tuffs of Tetschen.—Two interesting articles on the area of crystalline rocks east of Tetschen on the Elbe, have appeared simultaneously. The first, by Hibsch, is a description of the Tetschen² sheet of the map of the Bohemian Mittlegebirges, and the second by Graber,³ is on the fragments and bombs occurring in the tephrite tuffs of the region.

The volcanic rocks of the district are interbedded basalts, tuffites, tuffs and tephrites, of which the fragmental rocks are in greatest abundance. Augitites also occur as sheets, and camptonites as dykes in upper Cretaceous marls. The older igneous rocks are granitites and diabases that are associated with clay slates, probably of Cambrian age. Analyses of each of these rocks are given but the rocks are not described in detail. The greater portion of the author's article deals with the volcanic rocks. The tuffs are composed of basaltic and tephritic fragments of the coarseness of sand in some cases, and in others of

¹ Edited by Dr. W. S. Bayley, Colby University, Waterville, Me.

² Min. u. Petrog. Mitth., XV, 1895, p. 201.

³ Ib., p. 291.

pieces several feet in diameter. These are cemented together by finer portions of the same substances, among which have been deposited zeolites, carbonates, opal and other secondary minerals. Some beds of this tuff are so filled with large fragments of basalt, tephrite, etc., that the rock composing it has been called the "Brocken Tuff." It is to the study of the fragments in this tuff that Graber's paper is devoted.

The basalts and tephrites constitute sheets and lava streams that are interstratified with the tuffs and sediments. Among the former rocks are noticed feldspathic, leucitic and nephelinic varieties, besides in several places magma-basalts. In addition to sheet basalts, dykes and chimneys of this rock have also been observed.

The rocks in all their forms are normal in their development. The author regards contact action around the chimneys as the safest criterion by which to distinguish these forms from denuded sheets and flows. The tephrites comprise hauyn-tephrites, in which hornblende and aegerine are present, nepheline-tephrite, including trachytic and andesitic varieties, and leucite-tephrite composed of phenocrysts of augite, plagioclase and grains of magnetite in a groundmass of these same components, and leucite, biotite and nepheline.

The augite consists of two generations of magnetite and augite in a glassy base. Its analysis gave:

SiO ₂	TiO ₂	P ₂ O ₅	Al ₂ O ₃	Fe ₂ O ₃	FeO	CaO	MgO	K ₂ O	Na ₂ O	H ₂ O	Moisture	Total
43.35	1.43	1.54	11.46	11.98	2.26	7.76	11.69	.99	3.88	2.41	.59	=99.34

The feldspathic basalt and the andesitic tephrite are the only rocks that seem to have affected the sediments with which they are in contact. Quartzites are changed to aggregates of quartz grains in a glass matrix, where the action is not extremely severe, and to an aggregate of interlocking quartz grains where it has been intense. The article closes with an account of the detailed results of analysis of ten specimens of the volcanic rocks.

Graber's article is devoted principally to a description of the fragments found in the Brocken-tuff. These are all tephritic rocks, among which andesitic, leucitic and phonolitic types are recognized. The characteristics of the components of all these types are portrayed in great detail, especial care being given to the descriptions of the augite and the plagioclase. The phonolitic tephrite is characterized by the presence of nosean, which is in irregular grains. In the andesitic tephrite, which is the most basic variety, the porphyritic augite has an extinction angle $c \wedge C$ of 58° – 62° , in the leucitic type its extinction is

52°–56° and in the phonolitic type, the most acid variety, it is 50°–53°. In each of the types labradorite and sometimes oligoclase phenocrysts are common, but the feldspar of the groundmass differs in character in the different types. In the andesitic type it is oligoclase, in the leucite variety andesine, and in the phonolitic type sanidine.

A Nepheline-Syenite Boulder from Ohio.—Miss Bascom⁴ has found in the drift near Columbus, Ohio, a boulder which consists of nepheline-syenite porphyry. The rock is composed of large phenocrysts of oligoclase and smaller ones of nepheline, augite, hornblende and olivine in a groundmass composed of plagioclase and orthoclase laths, hornblende, biotite, augite and magnetite in a feldspathic matrix.

Crystalline Rocks of New Jersey.—In a report on the Archæan Highlands of New Jersey, Westgate⁵ states that the northern half of Jenny Jump Mt., Warren Co., consists mainly of gneisses with a small area of crystalline limestone, diorites, gneisses, etc. The gneisses are granitoid biotite-hornblende varieties, biotite-gneisses and hornblende-pyroxene gneisses. In the first named variety the prevailing feldspars are microcline and microperthite, and in the pyroxene gneisses plagioclase and orthoclase. The gneisses are cut by pegmatite dykes, amphibolites and diabases.

Associated with the white crystalline limestones are fibrolite and biotite gneisses, hornblendic gneiss, amphibolites, gabbros, norites and diorites, most of the latter of which show evidence of an eruptive origin. Another type of rock often found associated with the limestones is a quartz-pyroxene aggregate, in which the pyroxene is a green or white monoclinic augite. The limestone, the fibrolite and biotite gneisses and the quartz-pyroxene rock are thought to be metamorphosed sediments.

Simple Crystalline Rocks from India and Australia.—Judd⁶ gives us an account of several simple crystalline rocks from India and Australia. One is a corundum rock composed principally of corundum grains with rutile, picotite, diasporé and fuchsite as accessory constituents. The corundum is in part pale colored and in part strongly pleochroic. The grains of the latter extinguish together producing with the former a micro-poecilitic structure. One of the specimens examined came from South Rewah and the other from the Mysore State.

⁴ Journ. Geol., Vol. IV, p. 160.

⁵ Ann. Report State Geol. of New Jersey for 1895. Trenton, New Jersey, 1896, p. 21–61.

⁶ Mineralogical Magazine, Vol. XI, p. 56.

Associated with the corundum in the Mysore State is a fibrolite rock. A tourmaline rock from the Kolar gold field in the same State and from North Arcot and Salem in Madras, consists of twisted and bent tourmaline fibres in a matrix of smaller fibres of the same substance. In the neighborhood of Bingera, New South Wales, two rocks are found as dykes cutting serpentine. One consists almost exclusively of green garnets and the other of picotite. The former contains also gold and chrysocolla.

The Weathering of Diabase.—Mr. Merrill⁷ describes the changes that have been effected in a granular diabase at Medford, Mass., during its disintegration into soil. Bulk analysis of the fresh and the weathered rock yielded the following results:

	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	CaO	MgO	MnO	K ₂ O	Na ₂ O	P ₂ O ₅	Ign	Total
Fresh	47.28	20.22	3.66	8.89	7.09	3.17	.77	2.16	3.94	.68	2.73	100.59
Weathered	44.44	23.19	12.70	6.03	2.82	.52	1.75	3.93	.70	3.73		99.81

The disintegration of the rock is accompanied by a leaching out of its most soluble constituents. Assuming that the alumina has remained unchanged in quantity in the course of the disintegration, the percentage of each constituent lost in this process is shown to be as follows:

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	CaO	MgO	MnO	K ₂ O	Na ₂ O	P ₂ O ₅	Ign
18.03	.00	18.10	25.89	21.70	41.57	29.15	12.83	11.39	.00	

The paper is full of valuable suggestions that cannot be even referred to in these notes.

Petrographical Notes.—Transitions from massive anorthosites into augen gneisses and into thinly foliated gneisses and transitions from olivine gabbro into hornblende schists are briefly described by Kemp⁸ in a preliminary article on the dynamic metamorphism of anorthosites and related rocks in the Adirondacks.

Pirsson⁹ suggests the use of the word anhedron to express the meaning usually expressed in the phrase 'hypidiomorphic form.' An anhedron is a body with the physical constitution and properties of a crystal but without the crystallographic form. The term may be conveniently applied to the crystalline grains in rock masses.

⁷ Bull. Geol. Soc. Amer., Vol. 7, p. 349.

⁸ Bull. Geol. Soc. Amer., Vol. 7, p. 488.

⁹ *Ib.*, Vol. 7, p. 492.